azimuth limits of the main lobe **220**. It should be noted that the Wi-Fi system **250** is also called a BSS (Basic Service Set).

[0041] In FIG. **2**A, the AP **230** and stations (STAs) **240-1**, **240-2** should be able to communicate using Wi-Fi resources that overlap with the bandwidth used by the radar system **210**, for those directions **260** where the beam **280** is pointed in directions **260** other than at the system **250** (or the directions **260** point some predetermined distance away from the Wi-Fi system **250**). At some point as the main lobe **220** nears the 315 degree angle, the system **250** will no longer be able to communicate without error using the bandwidth also used by the radar system **210**. Since there are 60 beam positions in the example from above, the Wi-Fi system **250** should be able to communicate using the bandwidth used by the radar system **210** for many of those positions. Reference **298** is an illustration of a standoff distance relative to the Wi-Fi system **250**. This example assumes the standoff distance **298** corresponds to an azimuth for the beam **280** of 325 degrees. It is assumed the Wi-Fi system **250** can determine this standoff distance **298**. This standoff distance **298** still provides a lot of the rotation of the beam **280** in which the Wi-Fi system **250** may communicate. For instance, if the Wi-Fi system **250** can communicate when the beam is at X of Y positions, then the Wi-Fi system **250** should be able to communicate (at least) for (X/Y)*Z ms of each Z*Y ms.

[0042] Turning to FIG. **2**B, a block diagram is shown illustrating possible internal implementations of certain parts of the system shown in FIG. **2**A. In FIG. **2**B, two stations (e.g., mobile devices) **240-1** and **240-2** may be in wireless communication with the AP (e.g., a wireless access node providing access to the system **250**) **230** via wireless links **416-1** and **416-2**, respectively. The two STAs **240-1** and **240-2** are assumed to be similar and only possible internal implementation of the STA **240-1** is described.

[0043] The STA **240-1** includes one or more processors **450**, one or more memories **455**, one or more transceivers **460**, and one or more network (N/W) interfaces (I/Fs) **465**, interconnected through one or more buses **457**. The STA **240-1** includes one or more antennas **458**. The one or more memories **455** include computer program code **453**. Each of one or more transceivers **460** includes one or more transmitters (Tx) **461** and one or more receivers (Rx) **462**. The STA **240-1** includes a Wi-Fi controller **430**, which causes the STA **240-1** to perform at least the techniques presented herein. In an exemplary embodiment, the Wi-Fi controller **430** may be implemented (in part or wholly) as computer program code **453**, such that the one or more memories **455** and the computer program code **453** are configured, with the one or more processors **450**, to cause the STA **240-1** to perform techniques presented herein. In another exemplary embodiment, the Wi-Fi controller **430** may be (in part or wholly) implemented as hardware logic, such as being implemented in an integrated circuit, programmable logic device, or the like. The hardware logic may be part of the one or more processors **450** or separate circuitry. The one or more buses **457** may be any type of connection, such as traces on a motherboard, lines on a semiconductor, fiber optics, wireless connections, and the like.

[0044] The AP **230** includes one or more processors **420**, one or more memories **425**, one or more network interfaces (N/W I/F(s)) **410**, and one or more transceivers **405** (each comprising a transmitter, Tx, **406** and a receiver, Rx, **407**) interconnected through one or more buses **459**. The one or more transceivers are connected to the one more antennas **401**. The one or more buses **459** may be any type of connection, such as traces on a motherboard, lines on a semiconductor, fiber optics, wireless connections, and the like. The one or more memories **425** include computer program code **432**. The AP **230** includes a Wi-Fi controller **415**, which causes the AP **230** to perform at least the techniques presented herein. In an exemplary embodiment, the Wi-Fi controller **415** may be implemented (in part or wholly) as computer program code **432**, such that the one or more memories **425** and the computer program code **432** are configured, with the one or more processors **420**, to cause the AP **230** to perform techniques presented herein. In another exemplary embodiment, the Wi-Fi controller **415** may be (in part or wholly) implemented as hardware logic, such as being implemented in an integrated circuit, programmable logic device, or the like. The hardware logic may be part of the one or more processors **420** or separate circuitry.

[0045] The one or more network interfaces **465**, **410** communicate over different types of networks, such as USB (Universal Serial Bus), Bluetooth, or wired LAN as examples. In an example, the AP **230** uses the one or more network interfaces **410** to access a network (such as the Internet) using link **428**, where the network node **437** resides on the network. The network node **437** may include a database **438** in certain exemplary embodiments, where the database is able to be written to by the radar system **210** (or by an entity able to determine information about the radar transmissions from the radar system **210**). The database **438** is described in more detail below.

[0046] The computer readable memories **455**, **425** may be of any type suitable to the local technical environment and may be implemented using any suitable data storage technology, such as semiconductor based memory devices, flash memory, magnetic memory devices and systems, optical memory devices and systems, fixed memory and removable memory. The processors **450**, **420** may be of any type suitable to the local technical environment, and may include one or more of general purpose computers, special purpose computers, general or special purpose integrated circuits, microprocessors, digital signal processors (DSPs) and processors based on a multi-core processor architecture, as non-limiting examples.

[0047] In order to provide communication and corresponding sharing by the Wi-Fi system **250** of the bandwidth used by the radar system **210**, an exemplary proposal herein advertises in one or more specific broadcast frames whether the Wi-Fi channel is or is not available for contention-based access. A specific example defines a new field in an NDP CTS frame **300** termed as the "Next NDP CTS Crossing" field **310**. See FIG. **3**, which shows a proposed NDP CTS frame **300** format. In this example, the following fields **310** are shown: The NDP MAC Frame Type **310-1** (3 bits); Broadcast/Unicast **310-2** (1 bit); RA/PBSSID (Receiver Address/Partial Basic Service Set IDentifier) **310-3** (9 bits); Duration **310-4** (10 bits); Early Selector Indicator **310-5** (1 bit); and Next NDP CTS Crossing **310-6** (1 bit). The Duration field **310-4** is currently used by receiving STAs to set the NAV for the amount of time indicated in the Duration field. In conventional systems, the Duration value of 0 (zero) has no specific meaning.

[0048] In an exemplary embodiment, the field **310-6** implies whether a STA **240** which gained access to a channel is allowed to transmit data even at the time of the next scheduled NDP CTS frame. If the bit in the field **310-6** is set to 1